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10/701,161

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7590 01/16/2007
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EXAMINER

VO, HAI

ART UNIT

PAPER NUMBER

1771

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/701,161

Applicant(s)

CAMPBELL ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-25 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-25, and 32-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

1. All of the art rejections are maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-25, and 32-37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki et al (US 5,763,333). Suzuki discloses a laminate comprising a nonwoven layer, a moisture permeable sheet formed from a polyolefin mixed with a particulate filler, and an adhesive bonding the nonwoven layer and the film layer together at an add-on level between 0.5 to 7 gsm (abstract). Suzuki discloses the spunbonded nonwoven web made from a thermoplastic material, an elastomeric material (column 6, lines 65-67). Suzuki discloses the moisture permeable layer having a thickness from 15 to 40 microns (column 3, lines 45-47). Suzuki discloses an amorphous alphaolefin copolymer based adhesive containing 30 to 70% C5

hydrocarbon tackifier and an antioxidant (column 7, lines 50-65). Therefore, it is not seen that the molecular weight of about 200 Daltons or less could not have been inherently present as the same material is used for the tackifier. Suzuki teaches the APAO based adhesive comprising propylene copolymerized with 1-butene (column 7, lines 40-45). The adhesive composition has a Brookfield viscosity from 500 to 10000 cps (abstract). Suzuki discloses that the adhesive strength is about 100 g/25 mm or higher and there is no particular upper limit of the adhesive strength (column 9, lines 25-27). Likewise, the range disclosed by Suzuki encompassed the claimed range. Suzuki does not specifically disclose no burn-through visual defects. However, it appears that the bonded structure of Suzuki meets all the structural limitations as set forth in the claims, a thermoplastic film, a spunbonded web and an adhesive with a composition similar to the composition of the adhesive of the present invention, it is the examiner's position that no burn-through visual defects would be inherently present. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990). Accordingly, Suzuki anticipates or strongly suggests the claimed subject matter.

5. Claims 1, 4-6, 9-25, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack (US 5,843,057) in view of Karandonos (US 6,627,723). McCormack teaches a laminate comprising a nonwoven layer, a stretch-thinned film formed from a polyolefin mixed with a particulate filler, and an adhesive bonding the nonwoven layer and the film layer together at an add-on

level between 0.1 to 20 gsm. McCormack discloses the spunbonded nonwoven web made from a thermoplastic material, an elastomeric material (column 4, lines 15-35). McCormack discloses the single film layer which is liquid impermeable and water vapor transmissible (column 8, lines 45-60). McCormack '057 discloses the film layer having a thickness from 0.2 to 0.6 mils (column 9, lines 10-15). McCormack discloses the amorphous polyalphaolefin (APAO) based adhesive containing a tackifier and an antioxidant (column 9, lines 62-63). McCormack discloses the adhesive having a peel strength of 1328 grams, which is within the claimed range (table II). McCormack '057 does not specifically disclose the amount of tackifier in the APAO based adhesive. Karandonos teaches an APAO based adhesive for use in diapers comprising 1 to 25% by weight of a tackifier and a small amount of an anti-oxidant stabilizer (column 4, lines 20-21, and column 6, lines 23-25). Karandonos teaches the APAO based adhesive comprising propylene copolymerized with 1-butene (example 10). Since the adhesive composition of Karandonos is very much similar to the adhesive composition of the present invention, the Brookfield viscosity would be inherently present because like material has like property. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an adhesive composition as described by Karandinos for bonding the film and the nonwoven web of McCormack motivated by the desire to achieve an adhesive bond of sufficient strength between the film and nonwoven web (see Karandino, column 5, lines 55-57). McCormack as modified

by Karandinos does not specifically disclose no burn-through visual defects.

However, it appears that the bonded structure of McCormack as modified by Karandinos meets all the structural limitations as set forth in the claims, a water-impermeable thermoplastic film, a spunbonded web and an adhesive with a composition similar to the composition of the adhesive of the present invention, it is the examiner's position that the peel strength and no burn-through visual defects would be inherently present. Like material has like property. This is also in line with *In re Spada*, 15 USPQ 2d 1655 (1990).

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack (US 5,843,057) in view of Karandonos (US 6,627,723) as applied to claim 1 above, further in view of Suzuki et al (US 5,763,333). Neither McCormack nor Karandonos teaches or suggests the use of C5 hydrocarbon tackifier. Suzuki, however, teaches an APAO based adhesive for use in bonding a film and a nonwoven web of the diaper comprising 30 to 70% by weight of C5 hydrocarbon tackifier based on the total weight of the adhesive composition. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an adhesive composition as described by Karandinos for bonding the film and the nonwoven web of McCormack because this tackifier is solid at room temperature and preferred for use with the APAO based adhesive.
7. Claims 1, 4-6, 9-25, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman et al (US 6,632,212) in view of Karandonos (US

6,627,723). Morman teaches a laminate comprising a nonwoven layer, a stretch-thinned film formed from a polyolefin mixed with a particulate filler, and an adhesive material bonding the nonwoven layer and the film layer together at an add-on level between 3 gsm (examples). Morman discloses the spunbonded nonwoven web made from a thermoplastic material, an elastomeric material, extendible and non-extendible (column 7, lines 45-65). Morman discloses that the film layer and nonwoven web are each part of a single substrate (examples). Morman discloses the microporous film being liquid impermeable and water vapor transmissible (column 2, lines 30-32). Morman discloses the film layer having a thickness of less than 20 microns (column 10, lines 55-60). Morman does not specifically disclose the adhesive being an APAO based adhesive containing a tackifier and an antioxidant. Karandonos, however, teaches an APAO based adhesive for use in diapers comprising 1 to 25% by weight of tackifier and a small amount of an anti-oxidant stabilizer (column 4, lines 20-21, and column 6, lines 23-25). Karandonos teaches the APAO based adhesive comprising propylene copolymerized with 1-butene (example 10). Since the adhesive composition of Karandonos is similar to the adhesive composition of the present invention, the Brookfield viscosity would be inherently present because like material has like property. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an adhesive composition as described by Karandinos for bonding the film and the nonwoven web of Morman motivated by the desire to achieve an adhesive bond

of sufficient strength between the film and nonwoven web (see Karandino, column 5, lines 55-57). Morman as modified by Karandinos does not specifically disclose a peel strength and no burn-through visual defects. However, it appears that the bonded structure of Morman as modified by Karandinos meets all the structural limitations as set forth in the claims, a water-impermeable thermoplastic film, a spunbonded web and an adhesive with a composition similar to the composition of the adhesive of the present invention, it is the examiner's position that the peel strength and no burn-through visual defects would be inherently present. Like material has like property. This is also in line with *In re Spada*, 15 USPQ 2d 1655 (1990).

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman et al (US 6,632,212) in view of Karandonos (US 6,627,723) as applied to claim 1 above, further in view of Suzuki et al (US 5,763,333). Neither Morman nor Karandonos teaches or suggests the use of C5 hydrocarbon tackifier. Suzuki, however, teaches an APAO based adhesive for use in bonding a film and a nonwoven web of the diaper comprising 30 to 70% by weight of C5 hydrocarbon tackifier based on the total weight of the adhesive composition. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an adhesive composition as described by Karandinos for bonding the film and the nonwoven web of Morman because the tackifier is solid at room temperature and preferred for use with the APAO based adhesive.

Response to Arguments

9. The art rejections based on Suzuki have been maintained for the following reasons. Applicants argue that Suzuki does not disclose a laminate having a dynamic peel strength greater than 215 grams per 25 mm. The examiner respectfully disagrees. Suzuki discloses that the adhesive strength is about 100 g/25 mm or higher and there is no particular upper limit of the adhesive strength (column 9, lines 25-27). Likewise, the range disclosed by Suzuki encompasses the claimed range. It appears that the bonded structure of Suzuki meets all the structural limitations as set forth in the claims, a thermoplastic film, a spunbonded web and an adhesive with a composition similar to the composition of the adhesive of the present invention, it is the examiner's position that no burn-through visual defects would be inherently present. Like material has like property. Additionally, Applicants argue that heat embossing may increase the amount of burn-through due to the pressure and temperature associated with this step. The arguments are not found persuasive because they are simply based on Applicants' opinions. As no experimental data have been provided in support of Applicants' assertion, the art rejections are sustained.
10. The art rejections over McCormack in view of Karandinos have been maintained for the following reasons. Applicants argues McCormack heating the adhesive to about 177 °C and then applying it to a film at an air temperature of about 193°C to 221 °C before bonding the film to the non-woven layer. McCormack uses a process which is different from the process disclosed in the present invention.

Art Unit: 1771

Therefore, Applicants conclude that McCormack's dynamic peel strength would be expectedly different. The examiner respectfully disagrees. Applicants' attention is directed to table II of McCormack. The peel strength is within the claimed range as shown in samples 1, 2 and 5. Accordingly, the art rejections are sustained.

11. The art rejections over Morman in view of Karandinos have been maintained for the following reasons. Applicants argue that the combination of the references does not achieve the claimed dynamic peel strength because Karandinos does not disclose process conditions for applying the adhesive to a substrate. The examiner respectfully disagrees. There is no need for Karandinos to address the process conditions as set forth in the present invention to meet the claimed dynamic peel strength since Morman discloses the adhesive being applied at the temperature of about 200°F, which is less than 170 °C (examples). This is the same range temperature at which the adhesive was applied as set forth in the present invention. Applicants fail to make any arguments against the obviousness based on the combination of Morman and Karandinos, it is the examiner's position that the dynamic peel strength would be inherently present based on the same structural limitations and the same composition of the adhesive material as previously discussed. Accordingly, the art rejections are sustained.

Conclusion

- 12. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

- 13.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai Vo

HV

HAIVO
PRIMARY EXAMINER